

STATE OF NEW HAMPSHIRE  
INTER-DEPARTMENT COMMUNICATION



DATE: March 7, 2016

FROM: Matt Urban  
Wetlands Program Manager

AT (OFFICE): Department of  
Transportation

SUBJECT Dredge & Fill Application  
Harts Location, 40828

Bureau of  
Environment

TO Gino Infascelli, Public Works Permitting Officer  
New Hampshire Wetlands Bureau  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT Bureau of Bridge Maintenance for the subject Major impact project. This project is classified as Major per Env-Wt 303.02(p). The project is located on NH Route 302 over Silver Cascade Brook. The existing structure is a concrete slab bridge that has a 17' span and 44'-0" deck width. Proposed work consists of the following: place sandbag cofferdams, install temporary scaffolding, and point wingwalls and abutment walls.

This project was reviewed at the February 17<sup>th</sup> Natural Resource Agency Coordination Meeting. The minutes from that meeting can be found on the Departments website via the following link: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/nracrmeetings.htm>

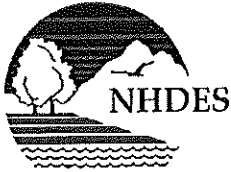
This project does not require mitigation.

A payment voucher has been processed for this application (Voucher #430651) in the amount of \$572.80.

The lead people to contact for this project are Steve Johnson, Assistant Administrator, Bureau of Bridge Maintenance (271-3668 or [sjohnson@dot.state.nh.us](mailto:sjohnson@dot.state.nh.us)) or Matt Urban, Wetlands Program Manager, Bureau of Environment (271-3226 or [murban@dot.state.nh.us](mailto:murban@dot.state.nh.us)).

If and when this application meets with the approval of the Bureau, please send the permit directly to Matt Urban, Wetlands Program Manager, Bureau of Environment.

MRU:mru  
Enclosures  
cc:  
BOE Original  
Town of Harts Location (4 copies via certified mail)  
Carol Henderson, NH Fish & Game  
Edna Feighner, NH Division of Historic Resources  
Maria Tur, US Fish & Wildlife  
Mark Kern, US Environmental Protection Agency  
Michael Hicks, US Army Corp of Engineers  
Saco River Local Advisory Committee (via certified mail)



THE STATE OF NEW HAMPSHIRE  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
LAND RESOURCES MANAGEMENT  
**WETLANDS BUREAU**  
29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
Phone: (603) 271-2147 Fax: (603) 271-6588  
<http://des.nh.gov/organization/divisions/water/wetlands>



## PERMIT APPLICATION

|                               |                               |                               |            |
|-------------------------------|-------------------------------|-------------------------------|------------|
| Administrative<br>Use<br>Only | Administrative<br>Use<br>Only | Administrative<br>Use<br>Only | File No.:  |
|                               |                               |                               | Check No.: |
|                               |                               |                               | Amount:    |
|                               |                               |                               | Initials:  |

### 1. REVIEW TIME:

Indicate your Review Time below. Refer to Guidance Document A for instructions.

☒ Standard Review (Minimum, Minor or Major Impact)

☐ Expedited Review (Minimum Impact)

### 2. PROJECT LOCATION:

Separate applications must be filed with each municipality that jurisdictional impacts will occur in.

ADDRESS: **US Rte. 302 over Silver Cascade Brook**

TOWN/CITY: **Harts Location**

TAX MAP:

BLOCK:

LOT:

UNIT:

USGS TOPO MAP WATERBODY NAME: **Silver Cascade Brook**

☐ NA

STREAM WATERSHED SIZE: **0.86 mi<sup>2</sup>**

☐ NA

LOCATION COORDINATES (If known): **044°12'24.23" 071°24'11.56"**

☒ Latitude/Longitude

☐ UTM ☐ State Plane

### 3. PROJECT DESCRIPTION:

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below.

**Rehabilitate the bridge that carries Rte. 302 over Silver Cascade Brook (063/090). Existing structure is a concrete slab bridge that has a 17' span and 44'-0" deck width. Proposed work consists of the following: place sandbag cofferdams, install temporary scaffolding, and point wingwalls and abutment walls.**

### 4. RELATED PERMITS, ENFORCEMENT, EMERGENCY AUTHORIZATION, SHORELAND, ALTERATION OF TERRAIN, ETC...

### 5. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: **NHB 16 - 0291**

b. ☒ Designated River the project is in ¼ miles of: **Saco River**; and  
date a copy of the application was sent to Local River Advisory Committee: Month: **3** Day: **7** Year: **16**

☐ NA


|  |  |   |                          |
|--|--|---|--------------------------|
| <b>6. APPLICANT INFORMATION (Desired permit holder)</b>  |  |   |                          |
| LAST NAME, FIRST NAME, M.I.: <b>Johnson, Steve W</b>   |  |   |                          |
| TRUST / COMPANY NAME: <b>NH Dept. of Transportation</b>  |  | MAILING ADDRESS: <b>7 Hazen Drive</b>           |                          |
| TOWN/CITY: <b>Concord</b>  |  | STATE: <b>NH</b>                                | ZIP CODE: <b>03302</b>   |
| EMAIL or FAX: <b>sjohnson@dot.state.nh.us</b>  |  | PHONE: <b>603 271 3667</b>                      |                          |
| ELECTRONIC COMMUNICATION: By initialing here: <u>SW</u> , I hereby authorize DES to communicate all matters relative to this application electronically  |  |   |                          |
| <b>7. PROPERTY OWNER INFORMATION (If different than applicant)</b>   |  |   |                          |
| LAST NAME, FIRST NAME, M.I.:   |  |   |                          |
| TRUST / COMPANY NAME:  |  | MAILING ADDRESS:                                |                          |
| TOWN/CITY:   |  | STATE:  | ZIP CODE:                |
| EMAIL or FAX:  |  | PHONE:  |                          |
| ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize DES to communicate all matters relative to this application electronically  |  |   |                          |
| <b>8. AUTHORIZED AGENT INFORMATION</b>   |  |   |                          |
| LAST NAME, FIRST NAME, M.I.: <b>Weatherbee, Anthony N</b>  |  | COMPANY NAME: <b>NH Dept. of Transportation</b> |                          |
| MAILING ADDRESS: <b>7 Hazen Drive</b>  |  |   |                          |
| TOWN/CITY: <b>Concord</b>  |  | STATE: <b>NH</b>                                | ZIP CODE: <b>03302</b>   |
| EMAIL or FAX: <b>aweatherbee@dot.state.nh.us</b>   |  | PHONE: <b>603-271-3667</b>                      |                          |
| ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize DES to communicate all matters relative to this application electronically  |  |   |                          |
| <b>9. PROPERTY OWNER SIGNATURE:</b>  |  |   |                          |
| See the Instructions & Required Attachments document for clarification of the below statements   |  |   |                          |
| By signing the application, I am certifying that:  |  |   |                          |
| <ol style="list-style-type: none"> <li>1. I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application.</li> <li>2. I have reviewed and submitted information &amp; attachments outlined in the Instructions and Required Attachment document.</li> <li>3. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900.</li> <li>4. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type.</li> <li>5. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative.</li> <li>6. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.47.</li> <li>7. I have submitted a copy of the application materials to the NH State Historic Preservation Officer.</li> <li>8. I authorize DES and the municipal conservation commission to inspect the site of the proposed project.</li> <li>9. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate.</li> <li>10. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action.</li> <li>11. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining.</li> <li>12. The mailing addresses I have provided are up to date and appropriate for receipt of DES correspondence. DES will not forward returned mail.</li> </ol> |  |   |                          |
| <br><input type="checkbox"/> Property Owner Signature   |  | <b>STEVE W JOHNSON</b><br>Print name legibly    | <b>2/21/2016</b><br>Date |

## MUNICIPAL SIGNATURES

### 10. CONSERVATION COMMISSION SIGNATURE

The signature below certifies that the municipal conservation commission has reviewed this application, and:

1. Waives its right to intervene per RSA 482-A:11;
2. Believes that the application and submitted plans accurately represent the proposed project; and
3. Has no objection to permitting the proposed work.


|  |                    |      |
|--|--------------------|------|
|  |                    |      |
| Authorized Commission Signature  | Print name legibly | Date |

#### **DIRECTIONS FOR CONSERVATION COMMISSION**

1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
2. The Conservation Commission signature should be obtained prior to the submittal of the original application and four copies to the town/city clerk for mailing to the DES.
3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will reviewed in the standard review time frame.

### 11. TOWN / CITY CLERK SIGNATURE

As required by Chapter 482-A:3 (amended 1991), I hereby certify that the applicant has filed five application forms, five detailed plans, and five USGS location maps with the town/city indicated below and I have received and retained certified postal receipts (or copies) for all abutters identified by the applicant.

|  |                    |           |      |
|--|--------------------|-----------|------|
|  |                    |           |      |
| Town/City Clerk Signature  | Print name legibly | Town/City | Date |

#### **DIRECTIONS FOR TOWN/CITY CLERK:**

Per RSA 482-A:3, I(d):

1. For applications where "Expedited Review" is checked on page 1, accept the application for mailing only if the Conservation Commission signature has been sought;
2. Collect the postal receipts demonstrating that all abutters and the Local Advisory Committee were sent proper notice;
3. Collect any administrative fees, not to exceed \$10 plus the cost of postage by certified mail (RSA 482-A:3, I).
4. IMMEDIATELY sign the original application and four copies in the signature space provided above;
5. Retain one copy of the application form, one complete set of attachments and the postal receipts demonstrating that all abutters and the Local River Advisory Committee were notified and make them reasonably accessible to the public;
6. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board in accordance with RSA 482-A:3, I; and
7. IMMEDIATELY send the ORIGINAL application form, one complete set of attachments and filing fee, by CERTIFIED MAIL to the NHDES Wetlands Bureau at the address indicated on page 1 of this application. (DO NOT HOLD FOR CONSERVATION COMMISSION SIGNATURE).

**12. IMPACT AREA:**

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact

**Permanent:** impacts that will remain after the project is complete.

**Temporary:** impacts not intended to remain (and will be restored to pre-construction conditions) after the project is complete.

**After-the-fact (ATF):** work completed prior to receipt of this application by DES. Check box to indicate ATF.

| JURISDICTIONAL AREA                 | PERMANENT<br>Sq. Ft. / Lin. Ft.    | TEMPORARY<br>Sq. Ft. / Lin. Ft.         |
|-------------------------------------|------------------------------------|---|
| Forested wetland                    | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Scrub-shrub wetland                 | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Emergent wetland                    | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Wet meadow                          | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Intermittent stream                 | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Perennial Stream / River            | 0 / 0 <input type="checkbox"/> ATF | 2121 / 119 <input type="checkbox"/> ATF |
| Lake / Pond                         | / <input type="checkbox"/> ATF     | / <input type="checkbox"/> ATF          |
| Bank - Intermittent stream          | / <input type="checkbox"/> ATF     | / <input type="checkbox"/> ATF          |
| Bank - Perennial stream / River     | 0 / 0 <input type="checkbox"/> ATF | 743 / 71 <input type="checkbox"/> ATF   |
| Bank - Lake / Pond                  | / <input type="checkbox"/> ATF     | / <input type="checkbox"/> ATF          |
| Tidal water                         | / <input type="checkbox"/> ATF     | / <input type="checkbox"/> ATF          |
| Salt marsh                          | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Sand dune                           | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Prime wetland                       | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Prime wetland buffer                | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Undeveloped Tidal Buffer Zone (TBZ) | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Previously-developed upland in TBZ  | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Docking - Lake / Pond               | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Docking - River                     | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| Docking - Tidal Water               | <input type="checkbox"/> ATF       | <input type="checkbox"/> ATF            |
| <b>TOTAL</b>                        | <b>0 / 0</b>                       | <b>2864 / 190</b>                       |

**13. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction

☐ Minimum Impact Fee: Flat fee of \$ 200

☒ Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking) 2864 sq. ft. X \$0.20 = \$ 572.80

Temporary (seasonal) docking structure:            sq. ft. X \$1.00 = \$

Permanent docking structure:            sq. ft. X \$2.00 = \$

Projects proposing shoreline structures (including docks) add \$200 = \$

Total = \$

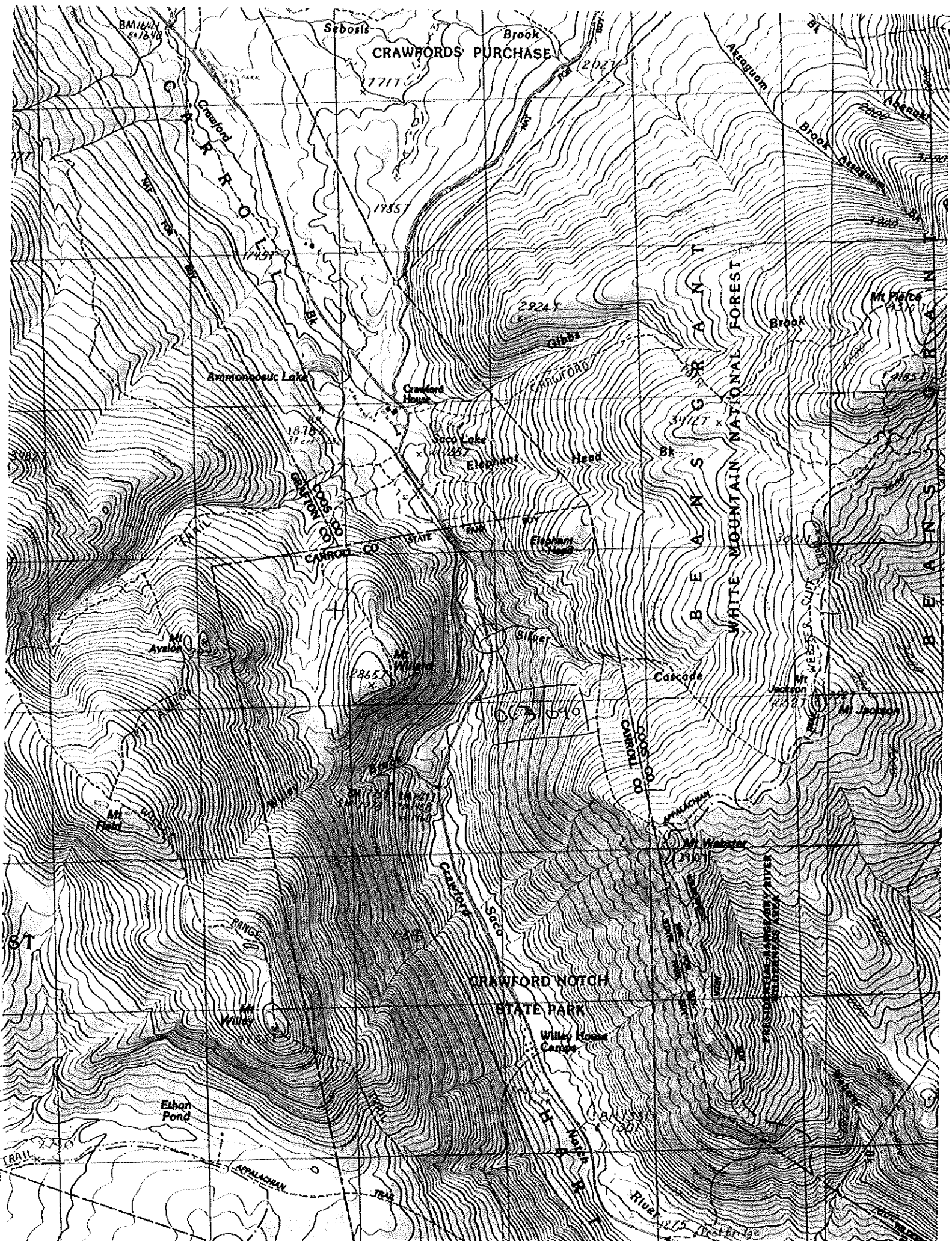
The Application Fee is the above calculated Total or \$200, whichever is greater = \$ 572.80

## **CONSTRUCTION SEQUENCE**

1. Sandbags will be placed in the river and the work zone will be dewatered. All flow will be maintained through natural sections of channel.
2. Temporary scaffolding will be installed.
3. Wing and abutment walls will be pointed.
4. Temporary scaffolding will be removed, all dewatering devices will be removed and the site will be restored to its original quality.

**Note:**

Project will use and maintain DES Best Management Practices at all stages of construction.





THE STATE OF NEW HAMPSHIRE  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
LAND RESOURCES MANAGEMENT  
WETLANDS BUREAU

29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

Phone: (603) 271-2147 Fax: (603) 271-6588

<http://des.nh.gov/organization/divisions/water/wetlands/index.htm>

Permit Application Status: <http://des.nh.gov/onestop/index.htm>

**PERMIT APPLICATION – ATTACHMENT A**  
**MINOR & MAJOR 20 QUESTIONS**

Env-Wt 302.04 Requirements for Application Evaluation – For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

Grout on the existing stone wingwalls and abutment walls is spalling, causing some stones to loosen. The stones will be secured by pointing. To accomplish this, temporary sandbags need to be installed in order to provide a dry working area. Temporary scaffolding needs to be installed to provide access to the walls. If the structure is not rehabilitated, it will eventually be load posted or closed.

2. That the alternative proposed by the applicant is the one with the least impact to the wetlands or surface waters on site.

The alternatives considered are as follows:

Face the existing wings and abutments: Facing the existing walls was an alternative considered. This alternative would provide the longest lasting protection for the retaining walls, but it would also create more environmental impacts and would increase costs. The gain in longevity due to facing the walls did not outweigh the additional costs and environmental impacts. Due to these reasons, this alternative was not chosen.

Point wing and abutment walls: This is the chosen alternative. The existing walls will be pointed. There will be no permanent impacts. There will only be temporary impacts for access. This is the most cost-effective and lowest impact solution to maintain and preserve the structure.

In the February 17, 2016 Natural Resource Agency Coordination Meeting no concerns with this project were raised.

3. The type and classification of the wetlands involved.

R2RB1: Riverine, upper perennial, rock bottom, bedrock  
Bank

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

Silver Cascade Brook flows into the Saco River.

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

This bridge is located within ¼ mile of the Saco River which is a Naturally Designated River.

6. The surface area of the wetlands that will be impacted.

2121ft<sup>2</sup> Riverine (2121ft<sup>2</sup> temporary, 0ft<sup>2</sup> permanent)

743ft<sup>2</sup> Bank (743ft<sup>2</sup> temporary, 0ft<sup>2</sup> permanent)



7. The impact on plants, fish, and wildlife, but not limited to:
- a. Rare, special concern species;
  - b. State and federally listed threatened and endangered species;
  - c. Species at the extremities of their ranges;
  - d. Migratory fish and wildlife;
  - e. Exemplary natural communities identified by the DRED-NHB; and
  - f. Vernal pools.

a) No rare or special concern species were identified within the proposed project area.

b) Lance-leaved Arnica was identified within the project limits. Coordination with DRED will ensure minimal impacts due to the proposed project. The USF&WS IPaC search identified the Northern Long-Eared Bat (NLEB) on the Project's Official Species List as having potential to be present in the project area. This project does require tree clearing. The Department has determined that the project will not result in any prohibited take as described in the final 4(d) rule that will be effective February 16th. The Department intends to employ the optional framework to streamline section 7 consultation in accordance with the USFWS non-jeopardy Intra-Service Programmatic Biological Opinion on their action of issuing the 4(d) rule for the NLEB, provided that ACOE elects to adopt this process.

c) There are no species known to be at the extremities of their ranges located in the project area or the surrounding area.

d) Migratory fish and wildlife will be protected under the direction of NH Fish and Game.

e) The Department has coordinated with DRED and the results of the NHB review revealed no records in this area.

f) There were no vernal pools identified and/or delineated in the project area.

8. The impact of the proposed project on public commerce, navigation and recreation.

During construction, access to the nearby residents and/or commercial businesses will be maintained at all times. Access will be maintained by alternating traffic with a one lane closure. Silver Cascade Brook is non-navigable waters which makes them non-conductive to boaters. There are no recreational areas that have been identified in this area except for the possibility for fishing. During construction fishing activities from the banks of the river will need to occur outside of the construction work zone. When construction is completed, the project as proposed will be a benefit to the public commerce.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project will not significantly interfere with the aesthetic interests of the general public. The proposed improvements will be more pleasing to the eye than the structure in poor condition.

10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

The project will not interfere with or obstruct public rights of passage or access. During construction at least one lane of alternating traffic will be maintained at all times. This will ensure access to all nearby businesses and residential homes in this area. Upon completion of this project the bridge will be reopened to two way traffic.

11. The impact upon the abutting pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to riprap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

The project is expected to have a positive impact on abutting properties. The rehabilitated structure will better serve the abutting properties if they need to travel on the road.

The project as proposed will not alter the chance of flooding on abutting properties.

12. The benefit of a project to the health, safety, and well-being of the general public.

**The project will provide a safer, longer lasting structure and roadway. If the structure is not rehabilitated, the bridge will eventually be load posted or closed. Keeping the roadway open benefits commerce, trade, emergency access, etc, for the general public.**

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and difference in the quality of water entering and exiting the site.

**The surface water currently runs off the bridge at the curb lines, to the wingwalls, and then off the structure. Upon completion of the project surface will drain water in the same manner. This will have no adverse effects on the quality or quantity of surface and ground water. Best Management Practices will be used to prevent any adverse effect to water quality during construction.**

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

**Flooding: Pointing the walls will have no effect on the hydraulic capacity of the structure. High flows will not be restricted, and low flows will be maintained as a result of this project.**

**Erosion: Pointing the walls will help prevent erosion and preserve the natural alignment and gradient of the stream channel.**

**Sedimentation: Nothing that will be a barrier to sediment transport will be installed in this project.**

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

**Surface waters will not be reflected or redirected as a result of this project. Silver Cascade Brook does not have enough surface water for wave energy to be an issue.**

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alternations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage ownership of that wetland and the percentage of that ownership that would be impacted.

**The work consists of the repair of an existing bridge structure. There are no similar structures in the vicinity owned by other parties that would require repair.**

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

**The value of the wetland as a habitat for living organisms will be unchanged. The project will be constructed outside the fish spawning season. A function of Silver Cascade Brook is to carry water from a higher elevation to a lower elevation. This project will not interfere with that function.**

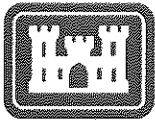
18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

**This project is not located in or near any Natural Landmarks listed on the National Register.**

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

**The structure is located within ¼ miles of the Saco River which is a Designated River.**

**There are no areas named in acts of congress or presidential proclamations as national rivers, national wildness**



**US Army Corps  
of Engineers®**  
New England District

**New Hampshire Programmatic General Permit (PGP)  
Appendix B - Corps Secondary Impacts Checklist  
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

| <b>1. Impaired Waters</b>   | Yes                  | No |
|---|----------------------|----|
| 1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See <a href="http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm">http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm</a> to determine if there is an impaired water in the vicinity of your work area.*  |                      | X  |
| <b>2. Wetlands</b>  | Yes                  | No |
| 2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?  | X                    |    |
| 2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, <a href="http://www.nhnaturalheritage.org">www.nhnaturalheritage.org</a> , specifically the book <u>Natural Community Systems of New Hampshire</u> .  |                      | X  |
| 2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?   | X                    |    |
| 2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)  |                      | X  |
| 2.5 The overall project site is more than 40 acres.   |                      | X  |
| 2.6 What is the size of the existing impervious surface area?   | 3687 ft <sup>2</sup> |    |
| 2.7 What is the size of the proposed impervious surface area?   | 3687 ft <sup>2</sup> |    |
| 2.8 What is the % of the impervious area (new and existing) to the overall project site?  | 0%                   |    |
| <b>3. Wildlife</b>  | Yes                  | No |
| 3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require a NHB determination.)   | X                    |    |
| 3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at:<br><ul style="list-style-type: none"> <li>• PDF: <a href="http://www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm">www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul> |                      | X  |

|  |     |     |
|--|-----|-----|
| 3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?   |     | X   |
| 3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?  |     | X   |
| 3.5 Are stream crossings designed in accordance with the PGP, GC 21?   | X   |     |
| <b>4. Flooding/Floodplain Values</b>   | Yes | No  |
| 4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?   |     | X   |
| 4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?  |     | N/A |
| <b>5. Historic/Archaeological Resources</b>  |     |     |
| For a minor or major impact project - a copy of the Request for Project Review (RPR) Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) shall be sent to the NH Division of Historical Resources as required on Page 5 of the PGP** |     | N/A |

\*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

\*\* If project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law..

### **Env-Wt 904.06 Repair or Rehabilitation of Tier 1 or Tier 2 Existing Legal Crossings**

- In order to qualify under this section, the crossing cannot have a history of causing or contributing to flooding that damages the crossing or other infrastructure. Does the crossing have a history of flooding? No
- Repair or rehabilitation pursuant to this section may be accomplished by concrete repair, slip lining, cured-in-place lining, or concrete invert lining. Please describe how this applies to the subject project.  
The stone wingwalls and abutments will be pointed with grout. There will be no increase in permanent impacts.

**If the above criteria do not apply to this project, the crossing does not qualify under this section and must be designed according to 904.02 (Tier 1 crossings) or 904.05 (Tier 2 crossings).**

**If the above criteria apply to this project, please provide the following information.**

The project may qualify as a **minimum** impact project if:

The crossing does not diminish the hydraulic capacity of the crossing. Pointing the stone wingwalls and abutments will not diminish the hydraulic capacity of the structure.

The crossing does not diminish the capacity of the crossing to accommodate aquatic life passage. The project as proposed will not diminish the capacity of the crossing to accommodate aquatic life passage.

The crossing meets the general design criteria specified in Env-Wt 904.01, as follows:

#### **Env-Wt 904.01**

(a) Not be a barrier to sediment transport;

Pointing the stone wingwalls and abutments will not act as a barrier to sediment transport.

(b) Prevent the restriction of high flows and maintain existing low flows;

High flows will not be restricted and low flows will be maintained.

(c) Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction;

This project will not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.

(d) Not cause an increase in the frequency of flooding or overtopping of banks;

This project will not cause an increase in the frequency of flooding or overtopping of banks.

(e) Preserve watercourse connectivity where it currently exists;

This project will preserve watercourse connectivity where it currently exists.

(f) Restore watercourse connectivity where: (1) Connectivity previously was disrupted as a result of human activity(ies); and (2) Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both;

This project will not change watercourse connectivity.

(g) Not cause erosion, aggradation, or scouring upstream or downstream of the crossing; and

This project will not cause erosion, aggradation, or scouring upstream or downstream of the crossing.

(h) Not cause water quality degradation.

This project will not cause water quality degradation. Appropriate BMP's will be in place and maintained throughout construction.

**If the project does not qualify as a minimum impact project due to reasons stated above, it may qualify as a minor impact project if:**

New Hampshire Department of Transportation  
Bureau of Bridge Maintenance

Project # 40828, Bridge # 063/090  
Harts Location, NH, Rte. 302 over Silver Cascade Brook

The crossing does not adversely impact the stability of the stream banks or stream bed upstream or downstream of the crossing. True

The crossing does not cause an increase in the frequency of flooding or overtopping of banks. True

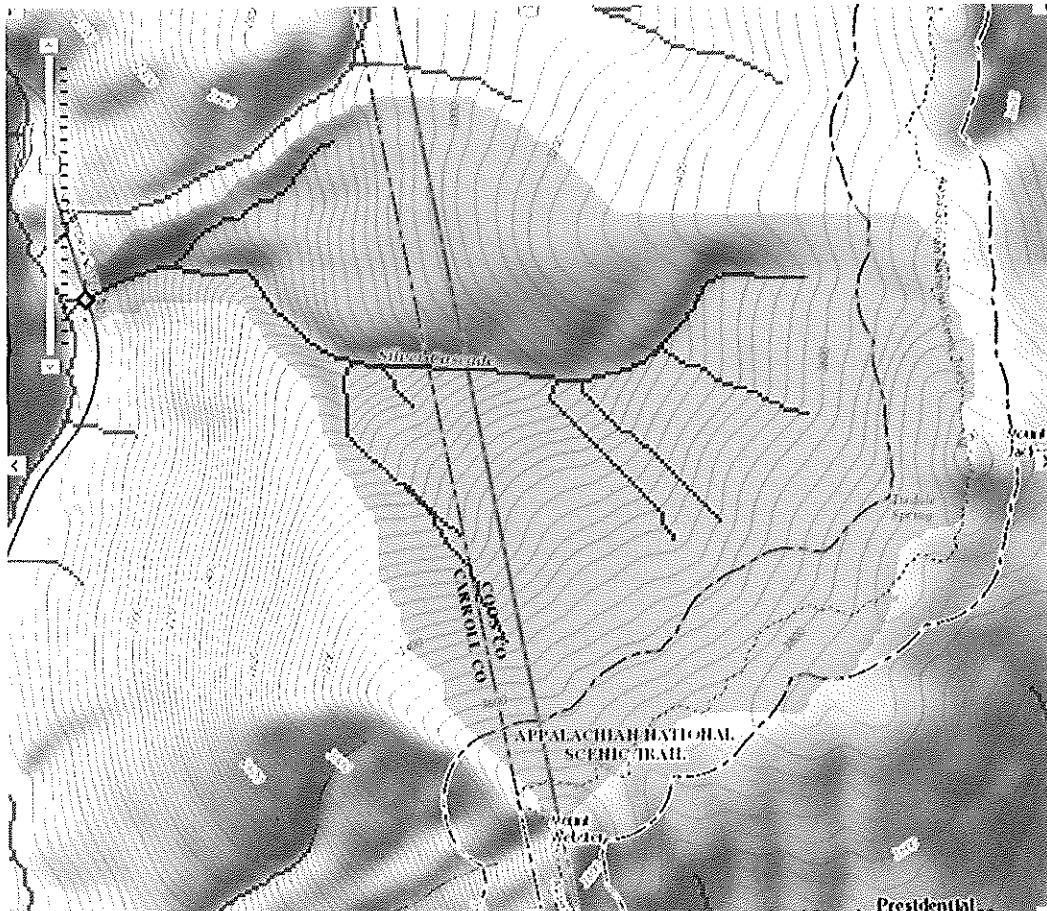
**If the project does not meet the above criteria for minimum OR minor, the crossing does not qualify under this section and must be designed according to 904.02 (Tier 1 crossings) or 904.05 (Tier 2 crossings).**

**Hydraulic Data**

Drainage Area – 0.86 sq mi

Q 100 = 843 cfs

Pointing the existing wingwalls and abutments will not change the hydraulic capacity of the structure.



**Figure 7: Watershed**

## **MITIGATION REPORT**

This project is maintenance of an existing structure and therefore mitigation is not required. At the February 17, 2016 Natural Resources Agency Meeting it was determined that no mitigation would be required.



# Memo



## NH NATURAL HERITAGE BUREAU NHB DATACHECK RESULTS LETTER

**To:** Tony Weatherbee, New Hampshire Department of Transportation  
7 Hazen Drive  
Concord, NH 03302

**From:** Amy Lamb, NH Natural Heritage Bureau

**Date:** 2/18/2016 (valid for one year from this date)

**Re:** Review by NH Natural Heritage Bureau

NHB File ID: NHB16-0291

Town: Harts Location

Location: Bridge that carries Rte. 16 over Silver  
Cascade Brook

**Description:** Existing structure is a concrete slab bridge. Proposed work consists of the following: place sandbag cofferdams, repair undermined east abutment, point voids in abutments and wings, do geotextile wrapped gravel.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

### Comments:

#### Plant species

lance-leaved arnica (*Arnica lanceolata*)

State<sup>1</sup> Federal Notes

T

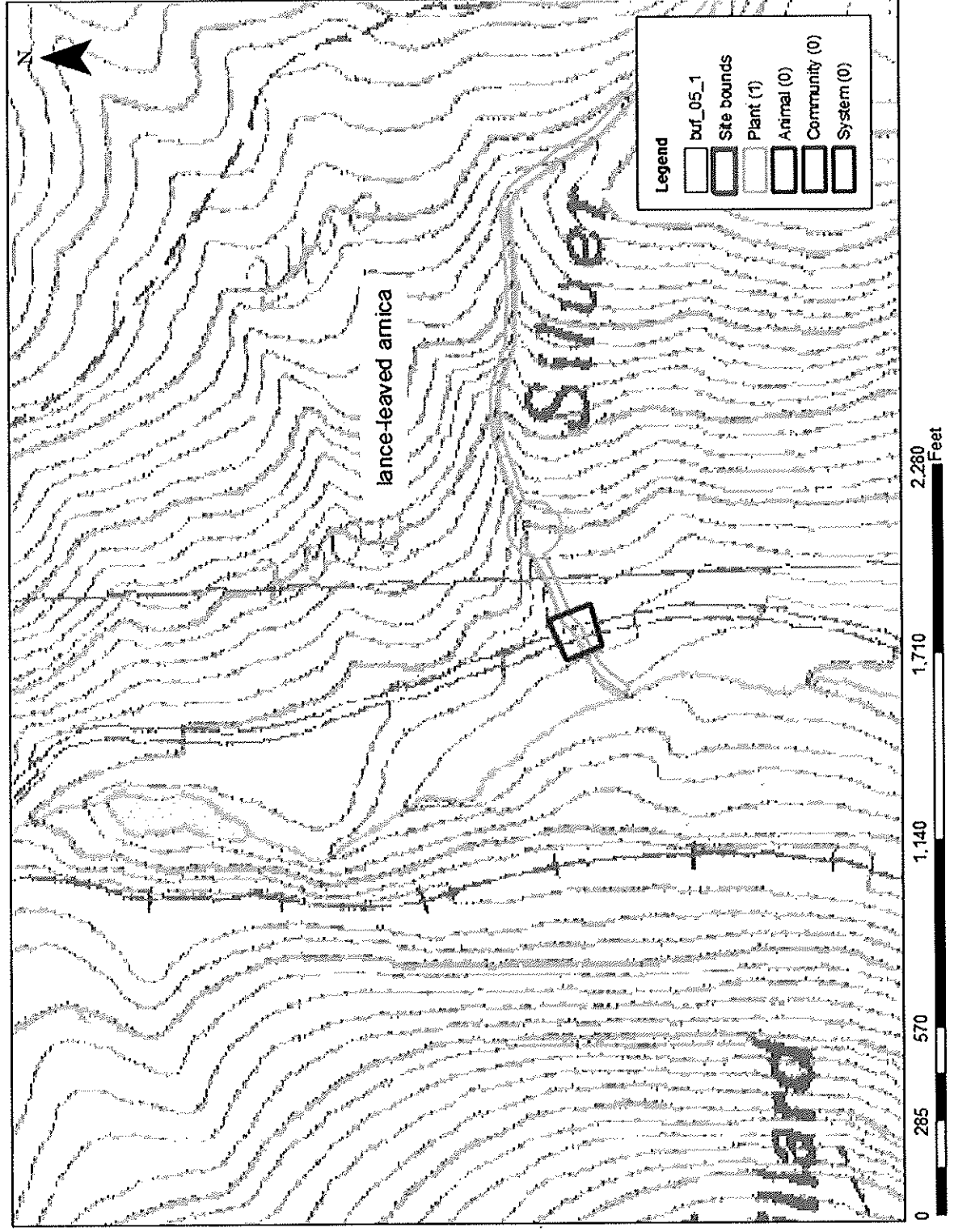
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Found on cliffs and ledges, river or streambanks, and wet alpine areas where natural disturbances or harsh conditions suppress other vegetation. Threats include direct destruction of plants, or habitat changes that would encourage growth of other plants.

<sup>1</sup>Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (\*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

NHB16-0291



## New Hampshire Natural Heritage Bureau - Plant Record

lance-leaved arnica (*Arnica lanceolata*)

| Legal Status |                   | Conservation Status                             |
|--------------|-------------------|---|
| Federal:     | Not listed        | Global: Rare or uncommon                        |
| State:       | Listed Threatened | State: Imperiled due to rarity or vulnerability |

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).

Comments on Rank: Presumed extirpated until 2002. Small population in heavily visited area. Some plants slightly trampled.

Detailed Description: 2009: 32 clumps, 25% in flower.2002: 11 vegetative clumps, 2 in flower/bud.1994: Searched for but not found. 1993: Searched for but not found. 1986: 5 large clumps in full flower.1859: Specimen collected

General Area: 2009: *Cliff seep*, in cracks of lower face of cascade. Associated species include rattlesnake-root (*Nabalus* sp.), Cutler's goldenrod (*Solidago leiocarpa*), long beech fern (*Phegopteris connectilis*), meadowsweet (*Spiraea alba* var. *latifolia*), violet (*Viola* sp.), whorled aster (*Oclemena acuminata*), and round-leaved sundew (*Drosera rotundifolia*).2002: Base of *cliff seep*. Associated species include *Drosera rotundifolia* (round-leaved sundew), bryophytes (5%), *Houstonia caerulea* (blueets), *Spiraea alba* var. *latifolia* (eastern meadowsweet), *Aster radula* (rough-leaved aster), and *Viola* sp. (violet).

General Comments: 1993: Population may have been destroyed by trampling or picking.

Management Comments: 2009: Needs signs and some sort of local barrier at the base of the cascade to prevent climbing.2002: Hiker traffic in and around cliff seeps, but little trampling on perennially wet areas. Possible signage to keep hiker traffic localized but this would be tough to implement.

Location

Survey Site Name: Silver Cascade  
Managed By: Crawford Notch State Park

County:

Town(s): Harts Location

Size: 1.8 acres                      Elevation: 2300 feet

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Silver Cascade. 2009: Base of cliff: In cracks of lower face of cascade, at base of first steep pitch to right (east) of main cascade. Within view of Rte. 302, about 100 meters from the road.2002: Base of cliff: At base of cliff seep [not 0.25 miles up]. 1986: Stream: 0.25 mile up Cascade Falls.1859: Silver Cascade, Mt. Webster.

Dates documented

First reported: 1859-07-12                      Last reported: 2009-07-17



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 03301  
PHONE: (603)223-2541 FAX: (603)223-0104  
URL: [www.fws.gov/newengland](http://www.fws.gov/newengland)



Consultation Code: 05E1NE00-2016-SLI-0958

February 18, 2016

Event Code: 05E1NE00-2016-E-01307

Project Name: Harts Location

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Harts Location

## Official Species List

**Provided by:**

New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 03301  
(603) 223-2541  
<http://www.fws.gov/newengland>

**Consultation Code:** 05E1NE00-2016-SLI-0958

**Event Code:** 05E1NE00-2016-E-01307

**Project Type:** BRIDGE CONSTRUCTION / MAINTENANCE

**Project Name:** Harts Location

**Project Description:** Rehabilitate the bridges that carry Rte. 302 over Flume Cascade Brook and Silver Cascade Brook. Existing structures are concrete slab bridges that have 17 spans and 44 feet deck widths. Proposed work consists of the following: place sandbag cofferdams, install temporary scaffolding, and point wingwalls and abutment walls.

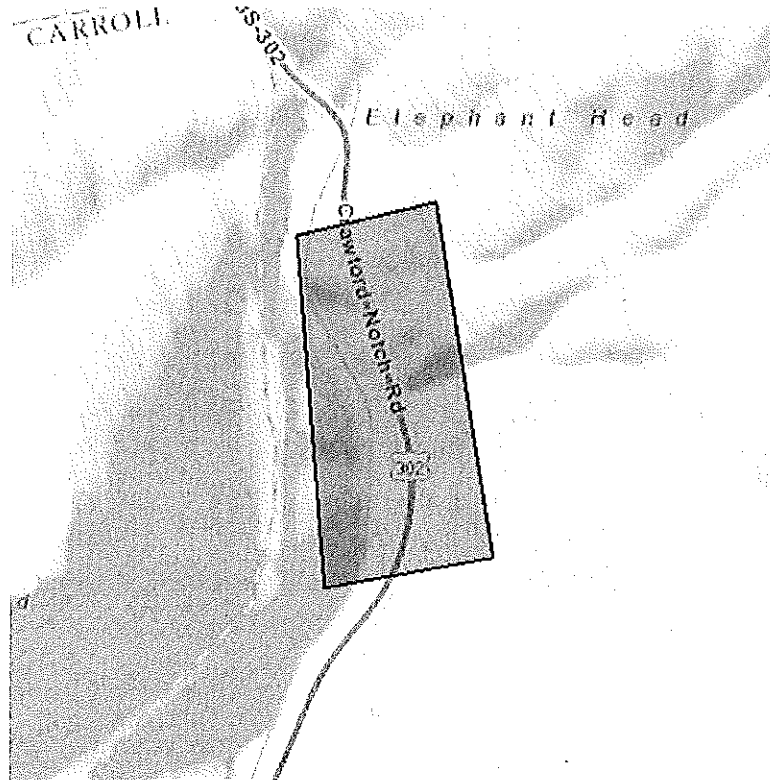
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Harts Location

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-71.40542507171631 44.209464972561626, -71.40237808227539 44.21000329674729, -71.40109062194824 44.204466013015896, -71.40480279922485 44.203989167019344, -71.40542507171631 44.209464972561626)))

**Project Counties:** Carroll, NH



United States Department of Interior  
Fish and Wildlife Service

Project name: Harts Location

## Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

| Mammals   | Status     | Has Critical Habitat | Condition(s) |
|---|------------|----------------------|--------------|
| Canada Lynx ( <i>Lynx canadensis</i> )<br>Population: Contiguous U.S. DPS | Threatened | Final designated     |              |
| Northern long-eared Bat ( <i>Myotis septentrionalis</i> )                 | Threatened |                      |              |





United States Department of Interior  
Fish and Wildlife Service

Project name: Harts Location

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

## Wetland Application – NHDOT Cultural Resources Review

For the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the US Army Corps of Engineers' *Appendix C*, and/or state regulation RSA 227-C:9, *Directive for Cooperation in the Protection of Historic Resources*, the NHDOT Cultural Resources Program has reviewed the enclosed Standard Dredge and Fill Application for potential impacts to historic properties.

## Above Ground Review

Known/approximate age of structure:

1960 Concrete Slab bridge (063/090); NH RT 302 over Silver Cascade Brook

Proposed work includes: place sandbag cofferdams, install temporary scaffolding, point wing and abutment walls

☒ No Potential to Cause Effect/No Concerns☐ Concerns:

## Below Ground Review

Recorded Archaeological site: ☐ Yes ☒ No

Nearest Recorded Archaeological Site Name &amp; Number: 27-CA-0189

☐ Pre-Contact ☒ Post-Contact Wiley House & Hotel Site

Distance from Project Area: 1.686 miles (2.714 km)

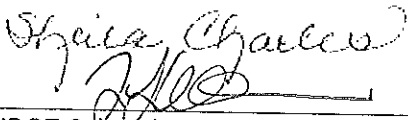
Review of the 1861 Walling map and 1892 Hurd map revealed no structures in project vicinity.

☒ No Potential to Cause Effect/No Concerns

Activities appear focused on previously impacted zones.

☐ Concerns:

Reviewed by:



NHDOT Cultural Resources Staff

2/29/2016

3/1/2016

Date:



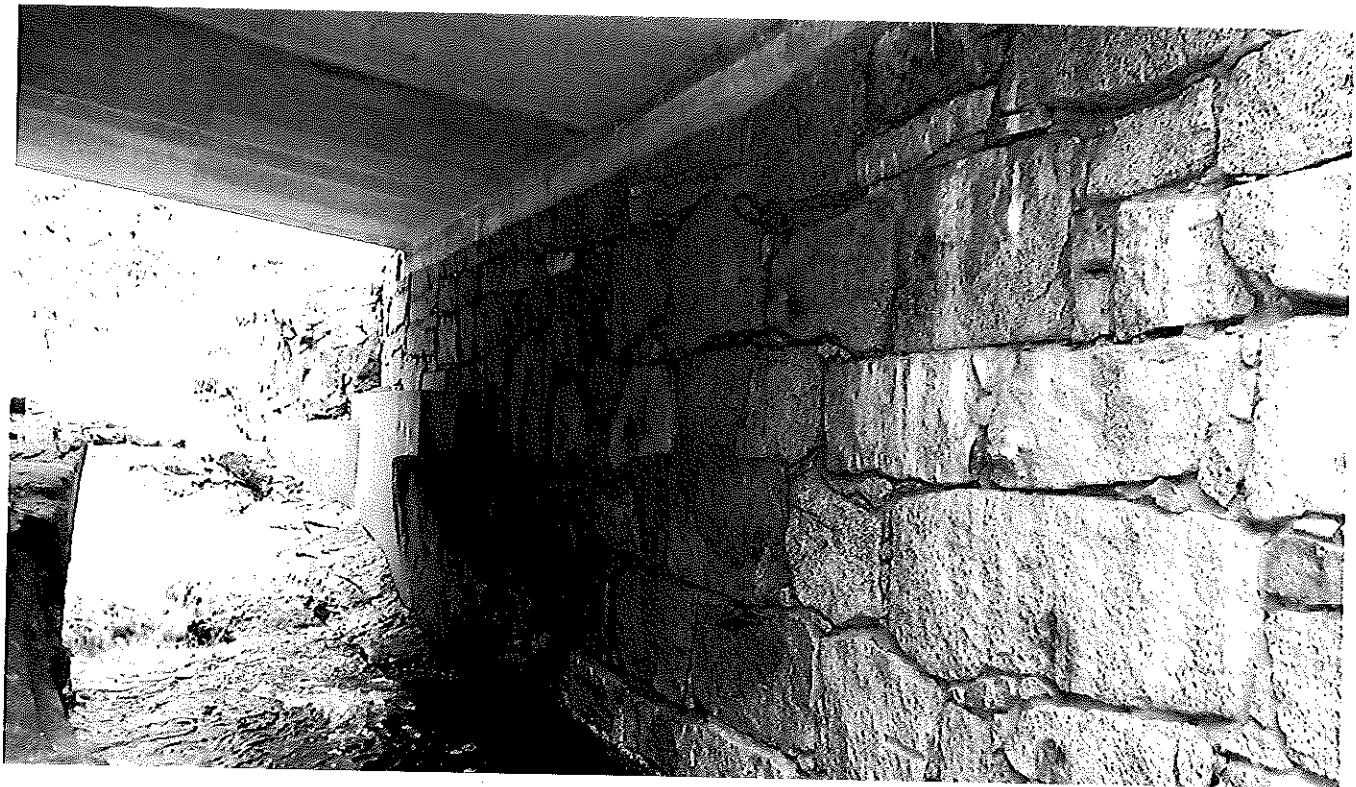
Figure 1: Structure elevation looking downstream (10/2015).



Figure 2: Retaining wall (10/2015).

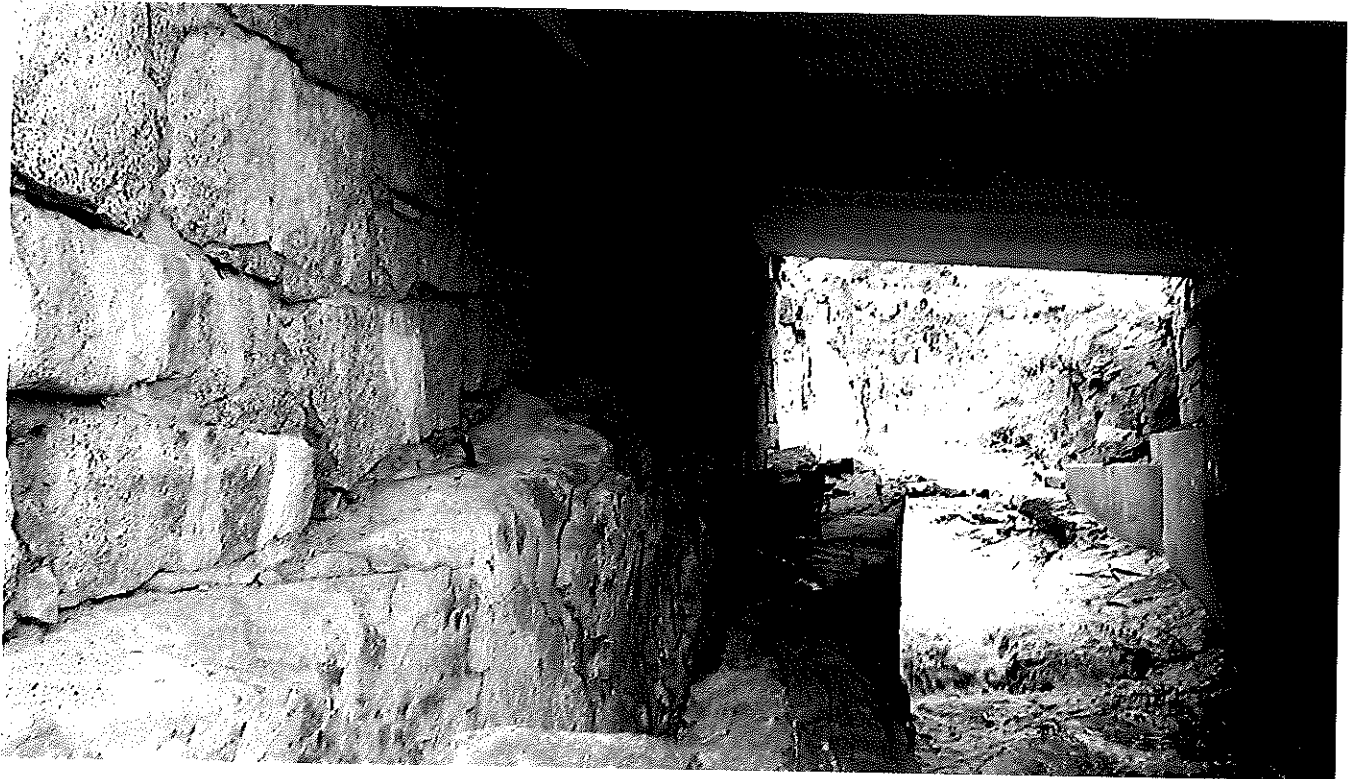


**Figure 3: Looking upstream from structure (10/2015).**

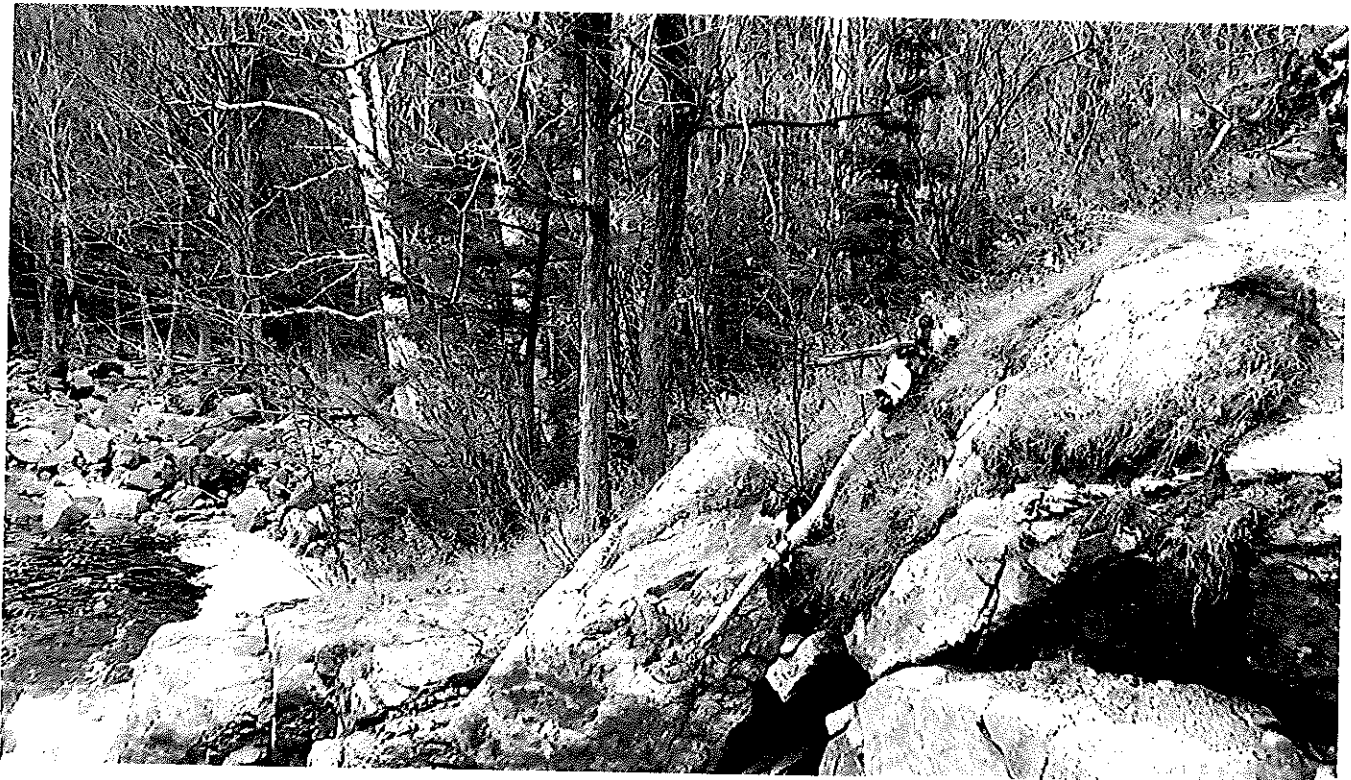


**Figure 4: Abutment wall to be pointed (10/2015).**





**Figure 5: Abutment wall to be pointed (10/2015).**



**Figure 6: Downstream (10/2015).**